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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/710,254	06/29/2004	Carlo Gemme	22106-00067-US1	4253
30678	7590	09/29/2005	EXAMINER	
CONNOLLY BOVE LODGE & HUTZ LLP SUITE 800 1990 M STREET NW WASHINGTON, DC 20036-3425			BAUER, SCOTT ALLEN	
			ART UNIT	PAPER NUMBER
			2836	

DATE MAILED: 09/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/710,254	GEMME ET AL.	
	Examiner	Art Unit	
	Scott Bauer	2836	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 June 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>6/29/2004</u> | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement filed 6/29/2004 fails to comply with 37 CFR 1.98(a)(3) because it does not include a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, of each patent listed that is not in the English language. It has been placed in the application file, but the information referred to therein has not been considered.

The examiner has located English abstracts for patents: DE-3006336, FR-2478868, & CH-311386 and said patents have been considered, However, no English abstracts have been found for patents: DE-850018, DE-1050430, or DE1191884 and have thus not been considered at this time.

Drawings

2. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct

any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

3. Claim 1 is objected to as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1, teaches "a parallel current path comprising a limiting fuse". However Claim 1 does not explicitly disclose what the current path, comprising a limiting fuse, is parallel to. For the purpose of this office action, the fuse is assumed to be in parallel with the switching means. Claim 1 should be rewritten to clearly state what device the limiting fuse is in parallel with.

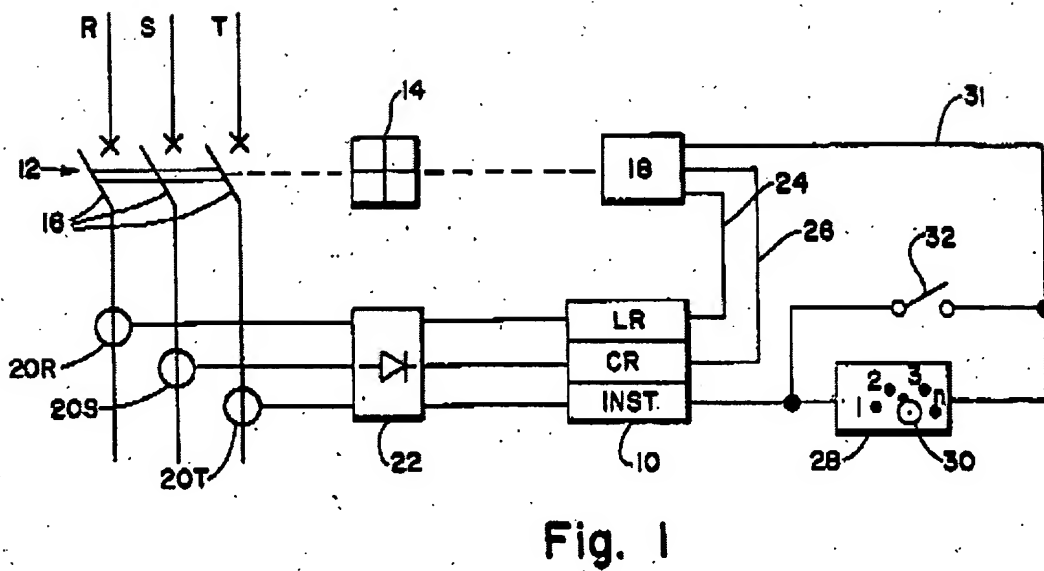
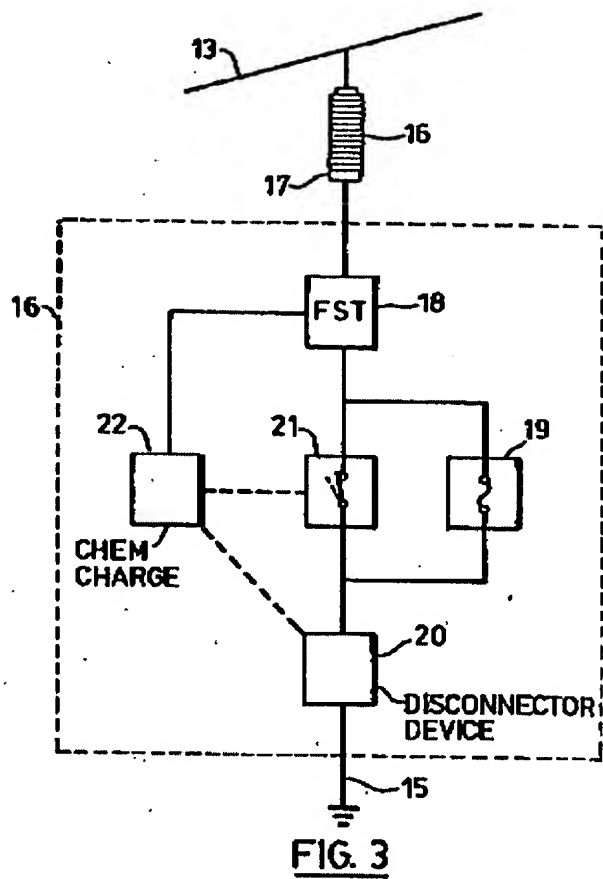
4. Claim 4 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 1 discloses a limiting fuse in parallel with a switch wherein the fuse is automatically replaceable. Claim 4 discloses a plural set of fuses arranged in the parallel current path. A device that automatically replaces fuses must inherently comprise a plural set of fuses to replace the blown fuse. Therefore Claim 4 discloses no new subject matter.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 2, 4, 6-8 & 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kortschinski et al. (US 4710847) in view of Sanford (US 2150249) and further in view of Puccinelli et al. (US 4644438).



7. With regard to Claims 1,4, 6 & 11, Kortschinski, in figure 3, teaches a fault current limiting system (16), and a method of limiting fault current, comprising a switch (21), providing fast switching operation (column 2 lines 30-33), and a parallel current path comprising a limiting fuse (19).

Kortschinski does not teach a switching system to automatically replace a blown set of fuses with an unblown set of fuses after a fault current limiting operation has occurred. Kortschinski further does not teach the use of a fast acting switch driven by a control system.

However, Sanford, teaches a multiple fuse device which comprises a multiple of fuses, one of which is primarily connected in the circuit to be protected with a reserve fuse, or fuses, adapted to be thrown into the circuit when the primary fuse blows out; and there is a switch which is automatically closed upon the blowing of the primary fuse and this switch serves to correct the secondary fuse into the circuit immediately after the primary fuse has blown (column 1 lines 6-14).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Kortschinski with Sanford by replacing a single fuse with a multiple fuse device for the purpose of saving maintenance costs as a lineman isn't required to find and replace a fuse each time the fault occurs.

Puccinelli et al. in figure 1, further teaches a current limiting device comprising a reusable fast switch (12) and a solid-state control system (10), which automatically operates the switch to create a relatively high arc voltage (column 3 lines 1-19).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Kortschinski in view of Sanford with Puccinelli et al. by replacing the chemically charged switch with a reusable fast switch, controlled by a solid state device, for the purpose of reducing maintenance costs because the switch is not replaced after each fault.

8. With regard to Claim 2, Puccinelli et al. disclose the fault current limiting system of Claim 1, where the switching means is a fast mechanical switch (column 3 lines 7-12).

9. With regard to Claim 7, Puccinelli et al. discloses a fault current limiting system where a dedicated control (10) means for supervising protection logic (20 R, S&T) used in the fault current limiting system and operating at least one of the switching means (12) and for controlling the switching system. (column 3, lines 9-19 & 40-48).

10. With regard to Claim 8, Puccinelli et al. discloses a fault current limiting system comprising means for short circuit closing after a fault, wherein said short circuit closing completes a restoration sequence of the fault current limiting system. (column 7, lines 27-32).

11. Claims 1, 3 & 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kortschinski et al. (US 4710847) in view of Sanford (US 2150249).

12. With regard to Claim 1, a separate rejection is made, independent from the rejection of Claim 1 above. Kortschinski, in figure 3, teaches a fault current limiting system (16), comprising a switch (21), providing fast switching operation (column 2 lines 30-33), and a parallel current path comprising a limiting fuse (19).

Kortschinski does not teach a switching system to automatically replace a blown set of fuses with an unblown set of fuses after a fault current limiting operation has occurred.

However, Sanford, teaches a multiple fuse device which comprises a multiple of fuses, one of which is primarily connected in the circuit to be protected with a reserve fuse, or fuses, adapted to be thrown into the circuit when the primary fuse blows out; and there is a switch which is automatically closed upon the blowing of the primary fuse and this switch serves to correct the secondary fuse into the circuit immediately after the primary fuse has blown (column 1 lines 6-14).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Kortschinski with Sanford by replacing a single fuse with a multiple fuse device for the purpose of saving maintenance costs as a lineman isn't required to find and replace a fuse each time the fault occurs.

13. With regard to Claim 3, Kortschinski, in view of Sanford, discloses the fault current limiting system of Claim 1. Kortschinski further teaches that the switching means for providing a fast switching operation comprises an explosive cartridge. (column 3, lines 63-65).

14. With regard to Claim 5, Sanford discloses a multiple fuse device where a switch disconnects the blown fuse after a fault condition and automatically replaces the blown fuse with a new fuse after the fault has finished, which is a revolver switch as specified in the applicant's specification. (paragraph 34).

15. Claims 9 & 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kortschinski et al. (US 4710847) in view of Sanford (US 2150249) and further in view of Puccinelli et al. (US 4644438) and Castonguay (US 4489362).

16. With regard to Claims 9 & 10, Kortschinski, Sanford and Puccinelli teach the device of Claim 1 as stated above.

Kortschinski, Sanford and Puccinelli do not teach placing the device on a movable track contained in an electrical distribution switchboard. Castonguay teaches an electrical switchboard containing circuit breaker and fuse compartments being accessible by a movable track (column 2 lines 33-40).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Kortschinski, Sanford and Puccinelli

with Castonguay by placing the current limiting circuitry on a track in a switchboard for the purpose of saving maintenance costs by providing current limiting protection to an electric distribution system at a common source allowing servicing the device without sending a lineman to a power line.

Conclusion

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following patents were found relevant to the prosecution. Parson (US 520378), Schultz et al. (US 2051771), & Witzel (US 2304619) all disclose a device that automatically replaces a fuse once it has been blown. Murray (US 1930485) discloses a current breaking mechanism where a fuse is placed in parallel with a switch, wherein the fuse blows if an arc is generated when the switch is opened.

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Bauer whose telephone number is 571-272-5986. The examiner can normally be reached on M-F 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus can be reached on 571-272-2058. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SAB

A handwritten signature in black ink, appearing to read 'Phuong T. Vu'.

Phuong T. Vu
Primary Examiner